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BOYLSTON PRIZE DISSERTATION FOR 1835.

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"What diet can be selected which will ensure the greatest probable health and strength to the laborer in the climate of New England? quantity and quality, and the time and manner of taking it, to be considered."

THE subject of diet offers a wide scope for observation, experiment and speculation, as affecting our species in several important points. It concerns us :

1. As to our intellectual and moral existence.

The view of the relations between body and mind, their varied connections with, and reactions upon each other, presents a field of research extended and promising the richest and most interesting results to the philosophical inquirer ; a field as yet little explored, but which it does not comport with the design of our present treatise to enter, or glance upon, except as incidentally illustrating our immediate purpose. Suffice it to observe, that, as it is now the perhaps generally received opinion, that the intellectual and moral faculties, if they do not exist in, are at least dependent upon material organs, an agent possessing such decided influence upon the bodily system, as the food cannot be denied to have, must produce no less marked indirect consequences upon the mental powers.

2. In its influence upon man in his civil and political relations.

The writers on political economy, and especially that branch of it involving the consideration of population, its increase and support, the capacity for productive labor, and in short, the entire view of man as a *laboring animal*, claim this as a topic of the highest interest and moment in their important investigations.

3. The connection between man's food and drink, and his bodily soundness, or the influence of diet in health and disease, known as the science of dietetics, is the province of the medical philosopher. It is one small portion of this copious topic, which we propose making an humble effort to elucidate ;—expecting neither to astonish by dazzling hypotheses, nor to attract ephemeral attention or notoriety by the invention of novel plans of life, or by the resuscitation of the ancient schemes of Pythagorean or Utopian dreamers from their long sleep of death.

There is, it is conceived, a peculiar propriety in a treatise on diet which shall be applicable to the working classes of our community. Writers heretofore, in their researches on this subject, have had in view

principally the wants and situation of the literary and sedentary, the rich and the luxurious, and this for obvious reasons ; the laboring man is little liable to suffer from errors of diet directly or even remotely. In the "march of intellect," the progress of which brings forward some fact and much fancy, the news may have reached even his ear, that he, in common with the more learned of his species, is guilty of errors, radical errors in his mode of life, which he had not even suspected ; that he has wandered widely from the natural laws of his physical system ; that he ought to make an entire alteration in his food to escape disease and secure long life ! Now to disabuse his mind of such chimeras, if such they are ; to give him some rational and intelligible views of what he errs in, and of what he is safe in pursuing, is a labor which is certainly not to be deemed unnecessary or superfluous. In attempting this, our aim is *utility*, practical, common-place, every-day utility ; to search out from sources of tried value, and re-convey in plain language, such practical, applicable information, as will enable even "the laborer in the climate of New England" to rise from the perusal of our essay, with at least some views which may make him a healthier, abler, and consequently a happier man.

"Contenta doceri, res ipsa ornari negat."

Our treatise will designedly be kept as close to the immediate question propounded, as possible, for two reasons ;—first, because any attempt to digress into the broad subject of dietetics in general, or the influence of food in disease, would necessarily require a research and examination the results of which would fill volumes, rather than the accustomed limits of a dissertation ;—secondly, that it is alone consistent with the expectation of producing a popular essay (for that seems to be the character which the language of the question designs), that it should be limited to reasonable dimensions as to quantity of matter, and free from professional or technical views as far as possible. Hence condensation will be attempted on a subject which, more than most others, tends to run into extended and discursive detail.

Such is the direct and obvious connection between health and aliment, that from the earliest history of man, his attention must have been compelled to this point of hygiene, or preservation of health. In the earliest of our books, the scriptural writings, we find ample proofs of this fact. An almost complete code of dietetics is laid down in that portion of the Pentateuch, which gives us the account of the journeying from Egypt of the chosen people ;—a code enforced by the immediate command of the Deity, particularly explicit and peremptory, still neither capricious or unnecessary, but founded on the nature of circumstances, and evidently adapted with wonderful sagacity and wisdom to the climate and to the habits of the Israelites.

The reader fond of this theological investigation may refer to a multitude of striking illustrations in the several books of Exodus, Leviticus, and Deuteronomy,* of the hygienic regulations of this people on their emigration to the land of Canaan. It would seem that their great sim-

* Moïse a donné les preuves les moins équivoque, de ses connaissances profondes en médecine dans la partie de ses lois qui contient des préceptes d'hygiène.

Sprengel. Hist. de la Med. T. I. p. 68.

plicity of diet in general, their strict prohibition of numerous species of aliment, as well as their great attention to cleanliness, frequent ablutions, their geometrical and extended mode of encampment to secure free ventilation, &c. alone could have preserved a host of three millions, worn and dispirited, over the arid sands of an Arabian desert, from being cut off by epidemic disease.

The first author in medicine of whom we have the writings now extant, was Hippocrates.* His writings on medicine generally, and his treatise on diet especially, exhibit the high and almost exclusive importance which the "father of medicine" assigned to diet as a means for the prevention of disease and preservation of health and bodily vigor, as well as a curative agent.

From his age to modern times the medical writings of every age and country teem with dietetic precepts. To trace an outline of all the views, rational and absurd, of the thousands who have expressly treated on this subject, would require a volume alone. Modern philosophers, modern empirics, and modern innovators, it may well be imagined, have not allowed a topic presenting such rare opportunities, alike for profound research, for self-conceited and opinionated dogmatism, and for visionary novelties, to escape without inflicting on that patient animal, the public, more than its full burden of books.

The inquiry *what food is man designed by nature to use*, has always been considered as standing on the very threshold of the investigation into the subject of diet. It has been discussed, settled, re-argued and put to rest, a thousand times over, yet every few years sees some new disputant ready to enter the arena of controversy, or some new sect of fanatics ready to replace those who have "sunk to the tomb of all the capulets."

It is demanded of us at the present time to enter more fully into an examination of this part of the natural history of man, than we should deem it profitable or important, except from some circumstances, which have rendered it here in New England desirable that the doctrines on this subject should be placed in their true light before the public. The circumstances alluded to (and which it may not be improbable form the immediate origin of this question having been selected and propounded for discussion), are plainly these: an extraordinary and truly unparalleled change has occurred within a few years past in this portion of the United States, in a most important circumstance of the domestic habits of the people; this is, the disuse of alcoholic drinks, where once they were employed to an extent having a most essential bearing on public health, life and happiness. In the progress of this change, happily denominated the *temperance reformation*, great and valuable researches were made into the effects of stimulants upon the human constitution. Following this train, some extraordinary, and, to the unprofessional class, doubtless novel, views in regard to diet were broached and have been since pressed upon the attention, and that too by at least some men of scientific reputation, ingenious lecturers and individuals who from weight of personal

* On doit le [Hippocrate] considérer comme l'inventeur de la Diététique, qui a une influence si importante sur la conservation de la santé et sur le traitement des maladies.—Renaridin.

character, or their position before the public, possess no limited influence. They have persuaded themselves, and labored hard to proselyte to their own faith, that the use of animal food, in all its forms and varieties, is a custom, unnatural, injurious to bodily health, and even prejudicial to intellectual and moral sanity ;—a custom at once unnecessary and inexpedient. How far, or how durably, they may have impressed the public with their views, time only can show ; at present it need only be said, that such effect has at least been produced, as to raise a laudable curiosity and wish for the truth, in the minds of many, deserving to be gratified.

Their views and theories are by no means new or original. They date their origin at least as far back as the ancients, and they have been revived in every century from the time of Pythagoras to the days of the philosopher of Geneva.* “It is not intended to deny the right of ingenious men to propose innovations, and it is a fortunate circumstance that the public is as much too slow in coming into a practical acknowledgment of new truths, as men of erratic and visionary genius are too sanguine in promulgating and inculcating new hypotheses. It is dangerous to unsettle long-established truths, for it is difficult to limit the extent of error. The gratification of a morbid desire to be distinguished as the propagator of new principles in philosophy, or as the head of a new sect, is not the only result to be expected from such heresies. New opinions or doctrines, whether true or false, will have admirers and followers, and will lead to practical results, and the errors of one man may lead thousands into the same vortex.”

Animals have usually been considered by naturalists and physiologists, as constituting two general divisions, the food of one of which is derived from the animal, and the other from the vegetable kingdom. A third general division, less universally acknowledged as founded in nature, comprises those whose aliment is derived alike from the nutritive substances of both. These last are known as the *omnivorous* animals. This division of animals is extended still further, constituting varieties characterized by the kind of food which is *generally* used by them, or which is pointed out to them by a brute, instinctive propensity. Thus animals feeding on flesh are termed *carnivorous* ; on fish, *piscivorous* ; on insects, *insectivorous* ; on vegetables, *phytivorous* ; on seeds, *granivorous* ; on fruits, *frugivorous* ; on the grasses, herbs, &c. *graminivorous* and *herbivorous*. Change of circumstances, necessity, domestication, &c. however, effect wondrous changes in what seem the natural, instinctive manner of selecting or avoiding different kinds of food.

The two classes of *flesh-eating* and *vegetable-eating* animals, are, as might, perhaps, have naturally enough been expected, *a priori*, constituted in a manner of bodily conformation so peculiar, and so differing from each other, that the naturalist under ordinary circumstances finds no difficulty in pronouncing with certainty what the kind of aliment naturally employed is, from an examination of the bodily organs ; and *vice versâ*, the aliment being known, he can decide with as little risk of error upon certain peculiarities of bodily conformation. This is especially

* J. J. Rousseau.

true towards the extremities of that great chain of gradation by which the animal creation is connected. There however exist certain races of animals, the swine, bear, some of the monkey tribes, and, as many philosophers maintain, the human species, a deduction of whose natural propensities as to food, from their organization, or the reverse, would, to say the least, be attended with greater difficulty and hazard of error.

The points in which the two grand divisions of animals, first named, are found to differ, are mainly in the organs of assimilation; some minor modifications are also noticed, such as the comparative vigor of internal and external construction, their temper and habits, peculiarity of the flesh as to putrefaction, &c.

Let us examine the most noticeable peculiarities of the masticatory organs of animals, as contrasted with those of man.

Carnivorous animals have the cuspidati, or canine teeth, very long and pointed, evidently designed to serve as weapons of offence and defence, in seizing, destroying, and lacerating other animals of less strength, ferocity or sagacity. In some varieties, as the cat kind, the lion, tiger, &c. these constitute formidable weapons. The molares, or grinding teeth, of the carnivori are elevated into pointed prominences, and the anterior teeth of the lower jaw shut behind or within those of the upper.

In the herbivori, these peculiar elongated teeth or tusks are wanting; the molares have broad surfaces opposed to each other, and in many species the enamel is intermixed with the osseous structure of the tooth, so as to form sharp ridges on the grinding surface, by which it is better adapted to the minute division and trituration of fibrous substances.

In man, canine teeth are found, possessing, however, little resemblance to those in the carnivori, as they project little beyond the level of the others, and are evidently unfitted for the purposes fulfilled by the cuspidati of the carnivorous tribes. The teeth in man are analogous to those of the monkey race, having so strong a resemblance to some of those animals, in this particular, as to form the strongest of the proofs brought forward in support of his being a *frugivorous* animal; an analogy or coincidence which we shall have occasion to demonstrate, is by no means conclusive or substantiable, as to this point. The human teeth, Mr. Lawrence* thinks, have no resemblance to those of the carnivorous animals, except that the enamel is confined to the external surface. The cuspidati are also less developed than even in the *simiæ* or ape-tribe. M. Virey,† however, remarks, that the lesser molares in man have a moderate development of points or tubercles, which with his cuspidati, constitute the carnivorous portion of this part of the human structure, whilst the flattened molares form the herbivorous characteristic.

It is on this relative number of the different kinds of teeth, that M. Broussonet has made the fanciful suggestion that the herbivorous is to the carnivorous nature of man in the ratio of 12 to 8; an idea, the absurdity of which is sufficiently manifest.

The monkey tribe, like man, have four superior and four inferior incisors, two canine, and ten molar teeth; a variety, however, the *sapajon*, has two additional molares.

* Rees's Cyclop. Art. *Man*.

† Dict. des Sciences Méd. Art. *Homme*.

The carnivorous animals have six incisores in each jaw, two cuspidati, and from eight to twelve molares ;—in the whole, from thirty-four to forty-two.

The order glires, or gnawing animals, as the beaver, rat, &c. have only two incisor teeth in each jaw, no canini, and from six to eight or ten molares, making a total of from sixteen to twenty-four teeth.

The ruminating animals without horns, as the camel, dromedary, &c. have two upper and six lower incisores, two to four canini, and ten to twelve molares in each jaw ; total, thirty-four to thirty-six.

The horned ruminantia have no upper incisores, eight lower incisores, no canini (except in the stag, where they are found in the upper jaw), and twelve flat molares in each jaw ; in all, thirty-two.

The solipedes, as the horse, &c. have six incisores in each jaw, two canini in the upper jaw, none in the lower jaw, and twelve molares to each.

The above instances present an obvious general correspondence between the structure of this part of the masticatory apparatus, and the kind of aliment and the mode of its prehension, appertaining to the animal.

The conformation of the muscles moving the lower jaw in the carnivori, is much more adapted to great power of action than in the other animals. The temporal and masseter muscles by which the motion of elevation is effected, are large and powerful ; a deep depression exists in the cranium, giving space for the former, and a wide and elevated zygomatic arch, under which it passes. In man these muscles, and the form and size of this arch, are similar to those of the herbivorous animals, evidently not being designed for those powerful efforts in seizing and tearing to pieces living animals and food of great tenacity, which are requisite in the flesh-eating species.

The mode of articulation of the lower jaw is another point of distinction between the two great divisions. In the carnivori it is almost or entirely of the ginglymoid or hinge-like kind, allowing only of elevation and depression, or at most a very limited extent of lateral, or of forward and backward motion. This results from a peculiarity of structure ; the condyles, or articulating extremities of the lower jaw, are broader laterally, and the glenoid cavity into which these are received very deep, having two very considerable eminences, anteriorly and posteriorly. The pterygoid muscles, the use of which is to effect a lateral movement, are very small. In the herbivorous animals, and in man, the articulation is so loose as to allow a free lateral movement, and the pterygoid muscles well developed and powerful. This movement is evidently essential to a grinding separation of the food, whilst the restricted motion of the jaw in the carnivori, and the angular, tricuspid and cutting conformation of their molares, are fitted for tearing to pieces their food, or dividing it perhaps by a scissor-like action.

After leaving the organs of mastication, the stomach and alimentary canal are the next organs of digestion which exhibit a discrepancy between the two divisions of animals. And here we see an equally decided, well marked correspondence between the extent and structure of these viscera and the food of the animal ;—the carnivori in general having their digestive apparatus much less complicated and less extended than those

subsisting on vegetable aliment. The stomach of the latter is much stronger and more muscular ; the length of intestine, compared with that of the whole body, much greater. In the carnivori, the alimentary canal varies from two to five times the length of the animal. In those living upon the blood of other animals, as the ichneumon, vampyre, bat, &c. the intestine is found only three times their length. In the lion, tiger, panther, &c. it is three times ;—in the wolf, four ;—in the dog, five ;—in the wild cat, three ;—in the domestic cat, living in part on vegetables, five. In the simiæ or ape tribe, the comparative lengths of the intestinal canal are found to be from six to eight times the length of the body, without including the inferior extremities in the admeasurement. Cuvier gives the following examples on this point.

In the gibbon (*s. longimana*) 8 ; mandril (*s. maimon*) 8.2 ; macaque (*s. cynomolgus*) 6.3 ; (*s. patas*) 6.5 ; (*s. paniscus*) 6.3 ; magot or Barbary ape (*s. inreus*) 5.4. The last named is considered by the French naturalists as *demi-carnacier*—half carnivorous.

In the vegetable eating tribes, the intestines are of much greater comparative length ;—in the sheep, 28 times ; ox, 22 ; camel and dromedary, 12 to 15 ; hare and rabbit, 12.

In the human species, the intestinal tube is ordinarily estimated by writers to be six or seven times the length of the body. In this admeasurement, it must be recollected that the lower extremities are included. If calculated as in the other animals, that is, the body and head alone being the measure, it is obvious that the comparative length will be materially affected, the ratio then being probably as 10 or 12 to 1, producing a more analogous resemblance between man and the herbivori, in this part of the structure.

In the carnivori, the large intestine, beside being comparatively short, is cylindrical in its form, whilst the herbivori have a large cæcum and a sacculated colon, besides in many species having a complex quadruplicated form of stomach. The sacculated form of colon is believed to exist in no one of the carnivorous animals.

In man the stomach is of a membranous kind, and moderate size, like that of the flesh-eaters, and contra-distinguished from that of the herbivori, which is muscular and capacious. The cæcum in man is intermediate in dimensions between the two classes, and he has a colon divided into sacciform appendages, by longitudinal and transverse bands.

The difference between these visceral organs, in the two kinds of animals, is manifestly adapted to a wise purpose. The vegetable eaters, sustained by aliment containing but a small proportion of nutritive parts, capable of separation in proportion to the bulk of material ingested, require organs which will admit of the reception of a considerable quantity of food at once, a long delay for trituration, maceration, absorption, and the other processes of elaboration and assimilation, necessary to extract the nutritive particles from the mass of woody fibre and refuse un nourishing vegetable principles.

The same principle of the adaptation of organs to the nature of the food instinctively preferred, or at least generally employed, does not stop short in a defined and distinct line between what have been known as the flesh-eating and vegetable-eating animals. It may be traced still further

in the individuals of both these classes. For example, we shall find, amongst the carnivori, the digestive apparatus of those living by sucking blood, or on softened flesh or putrefying carcasses, is much less vigorous, muscular and extended, than in those destroying their own prey, and devouring on the spot, like the feline races, "the entire animal," muscle, tendon, ligament and bone. An original difference of instinct, or propensity for different states of aliment, is also correspondent to this variation of structure. The lion, the tiger, &c. will never, except when compelled by urgent hunger, devour flesh in which decomposition has taken place; nor, on the contrary, will the ichneumon, hyena, &c. devour the recently killed animal, unless impelled by the same imperious necessity. Again: amongst those whose instinctive propensity leads them to a subsistence on vegetable food, the complexity of their organs differs according to the nature of their aliment; the grass-eating animals have a very different digestive organization, from that of the frugivori; and those instinctively selecting hard grains and seeds, are supplied with a still different and peculiar apparatus for grinding and thus fitting their unyielding aliment for assimilation.

[To be continued.]

NOTES OF SOME CASES OF FRACTURES,

TAKEN AT A SURGICAL VISIT AT THE MASS. GENERAL HOSPITAL, IN OCTOBER.

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UN-UNITED fracture of the thigh-bone.—The patient, an athletic man, about 25 years old, broke his thigh three months before admission to the hospital. He was carefully treated; but on removing the apparatus, 42 days after the accident, the bone was found to bend forwards, and he could not afterwards recover the use of the limb. The fracture was found to be at the termination of the upper third of the thigh-bone; which upper third projected forwards, and by the sharpness of its extremity showed that the fracture had been oblique. The limb was shortened an inch and a half, the foot turned out.

Dr. Warren stated that it might be necessary to cut down to the fracture, divide the newly-formed substance between the fractured parts, and afterwards treat the case as a recent fracture; but that he should prefer trying the effect of compression and rest previously.

The apparatus of Mr. Amesbury was then applied; but after three days trial the flexed posture was found not to admit of keeping the limb in a state of perfect rest, nor of making the compression desired. This apparatus was therefore removed, and the following substituted. 1. The limb was tightly rolled with a circular bandage. 2. Two strips of wood were applied, one extending from the upper edge of the os innominatum to the foot; the other, placed on the inside of the limb, from the groin to the lower part of the foot. These were rolled in a splint cloth and properly padded, and secured by tapes around the limb; the pelvis was encircled by a broad band which included the upper end of the outer splint. The pelvis band was kept in its place by a groin band. The splints being thus fixed, a circular bandage was rolled over them

from the pelvis to the foot. The apparatus thus applied, was so firmly and compactly fixed, that the limb or the patient might be readily moved without disturbing the fracture. Finally two straps were buckled on the limb, over the fracture, and drawn as tightly as the patient could bear. A cradle pillow within was placed over the foot and leg.

As soon as the straps were applied, the patient began to experience pain in the fracture; but being satisfied it was the effect of a salutary operation, he bore it quietly. The pain continued fifteen days. Three days after it had ceased, that is, on the eighteenth day, the apparatus was removed. The bone was found united; the limb about its natural length, and the foot not turned out.

The compression made by the circular straps brought on the ossific inflammation; and at the same time forced the oblique and overshooting bones into their natural situation, so as to restore to the limb its proper length and position.

Compound fracture of the leg.— —, aged 30, fell and fractured the two bones of the leg below the middle. The fracture was oblique. The tibia protruded anteriorly. Much inflammation and constitutional affection followed, but the patient's habit was not such as to authorize depleting remedies. The limb was placed in the fracture box of Petit—well cushioned and kept without splints, until the swelling had subsided and the wound healed. The bones were then not united, and the patient complaining of a want of pressure, about the fracture, splints were applied and union took place without difficulty.

This and the former case show that compression is not only necessary to retain the bones in position, but to aid the uniting process.

Speedy union of the os humeri.—A British sailor boy, making his way from Canada to the United States on foot, being without money, undertook to assist a farmer, on the road, in getting in hay—and from the hay-mow fell backwards to the lower floor, and fractured the os humeri. A surgeon in the vicinity reduced the fracture and applied splints very closely. The lad prosecuted his journey, and having no place to resort to, came at once to the hospital, was admitted, and the fracture being examined, an irregularity was distinctly ascertained; but the bones scarcely moveable on each other, and in two days after they were perfectly united, though still tender.

—, aged 19, broke his thigh bone at the termination of the inferior two-thirds, by falling from the side of a vessel. The fracture was oblique. The patient being a stout healthy young man, was bled twenty ounces. Then the bones being brought into place by extension, were secured by four thigh splints—and the straight machine for fractured thigh was applied, well padded, and supported by a cradle, so as to produce a perfect immobility of parts of the limb on each other. The patient had no pain after the apparatus was applied, and the limb being examined on the seventeenth day, no motion could be found at the fractured part. He was kept still till the 28th day, when he was permitted to rise. On the third trial of his limb, he remained so long upright as to cause fainting. The lifting him to the bed hurt his thigh, and the consequent tenderness was so great as to require two weeks more of confinement.

Compound comminuted fracture of the thigh.—Two of these cases exist in the hospital. These patients were not bled, but required a supporting course. Great suppurations, exfoliation, erysipelas and diarrhœa occur. In the patient first brought in, union has taken place, while suppuration and exfoliation are still in progress. The other has diarrhœa and enormous swelling of the limb, so that it is not probable he will recover.*

The straight posture of the limb in fractures of the thigh has been generally preferred in this hospital; and its success has fully justified this preference. Two long and narrow splints connected at the lower extremity, are applied on the principle of Desault's apparatus.

Boston, November, 1835.

THE SCIENCE OF LIFE.

EXTRACTS FROM A PROEM TO A COURSE OF LECTURES AT BOYLSTON HALL.

BY S. GRAHAM.

[Communicated for the Boston Medical and Surgical Journal.]

IN regard to almost everything in nature, except human life and health and disease, mankind are ready to acknowledge that there are fixed principles and permanent laws, and established order and system.

They do not believe that there are any fixed laws of life, by the proper observance of which, man can, with any certainty, avoid disease and preserve health, and prolong his bodily existence:—and they are confident that the experience of the human family in all ages has fully and conclusively demonstrated the correctness of their views.

Thus, we are told, it is completely demonstrated by the experience of all nations and all ages, that human life and health and disease are matters either of absolute fatality or perfect contingency—and that in regard to them, there is no fixed philosophical relation between cause and effect: and therefore, the life, health, disease, and diet of man, cannot be governed by fixed laws, nor made matters of systematic science.

This reasoning, at first view, appears forcible and conclusive—but when thoroughly examined, it proves to be entirely fallacious:—and the more deeply and extensively we push our investigations on this subject, the more fully are we convinced that human life, health, disease, diet, and general regimen, are matters of as pure and nearly as exact science as mathematics. Indeed, the science of human life, or of human nature, is far the most profound and important subject that has ever occupied the attention of man—and in order to the most perfect understanding of it, a knowledge of all other sciences is requisite. In fact, it may almost be said that the science of human life consists of the sum of all other sciences systematized into one!—and the only reasons why the notions of mankind are so vague and erroneous on this subject, are that they never study it as a science; and most or all of their opinions are the results of *feeling*, or what they mis-call experience, rather than of deep reasoning and philosophical investigation. Nor is it surprising that it should

* Since these notes were taken, he has died.

be so, when the nature of man as a rational animal, and the circumstances in which he is placed, and the influences which act on his natural and moral susceptibilities, are accurately considered.

It is obvious that in the general progress of things, by which new wants are continually and rapidly generated and multiplied, there is little to lead the mind of man to study the laws of human life, or to examine the dietetic and other habits and circumstances of civic life, with reference to health and disease.

The artisan who manufactured the first rude cup or goblet, probably never gave a thought to the question whether water or some other liquid is best adapted to the natural wants of man :—and since him, the thousands who have been employed in the same line of art, have seldom, if ever, been led, by their occupation, to inquire whether wine, tea, coffee, and other alcoholic and narcotic beverages, are adapted to the real wants of the human body, and consistent with the laws of life and health. On the contrary, the very employment and circumstances of every artisan require the constant application of his mental powers to the principles and operations of his art, in order to his immediate success as an artisan, and to his ultimate pecuniary success as a member of society. And this is also true of almost every other member of society. The wants of civic life are so numerous, and constitute so important a part of the very texture of social and domestic life, that every man finds nearly his whole time and attention taken up in supplying them.

It is true that disease multiplies in society, in proportion as man removes from a pure state of nature, and becomes more and more an artificial being in his habits and circumstances :—and this leads to the study of the healing art—and ultimately to the study of anatomy and physiology. But, even here, the general tendency of things is far less favorable to the accurate and profound study of the science of human life, than is generally supposed.

Disease always precedes the physician :—and the sick are only concerned to know how they can obtain the most speedy relief from their sufferings. The question with them, and with their friends, is not, how they come by their sickness, or by what violation of the laws of life it has been induced—but by what remedies they can remove the disease and restore health.

The domestic therapeutics of the earliest stages of society is generally extremely simple, and is perhaps governed at first by the morbid cravings of the patient, by accident, and finally by experience. If by any means the disease is removed, the remedies and measures employed are carefully remembered, and used again when similar cases occur ; and in this manner, every tribe and almost every family soon acquire their system of pharmacy, and their theory and practice of medicine.

As society advances and diseases become more numerous and frequent, it follows, as a necessary result from the natural order of things, that individuals become devoted to the study of remedies, and to the care of the sick ; and thus physicians originate. The office is, perhaps, more frequently at first confined to the priesthood, who employ, with their simple remedies, an abundance of superstitious juggling and incantation and exorcism.

In time, however, some master-spirit, like Hippocrates, rises up, and digests the chaos of crude elements into something like order and system. But it is obvious that, from the first rude origin of these elements, to their systematic arrangement, everything is done simply with a view to *cure* the disease, and without any regard to its cause :—and, indeed, the disease itself is generally considered as the direct and vindictive infliction of some benevolent or malevolent supernatural being or beings :—and, therefore, in all the progress of the healing art, thus far, not a step is taken towards investigating the laws of life and health, and the philosophy of disease.

Nor, after medicine had received a more systematic form from the plastic hand of Hippocrates, did it lead its votaries to those researches which were most essential to its success, and which its great importance to society demanded ; but like religion and everything else in the hands of man, it became blended with the grossest superstitions, errors and absurdities. Hence, from the earliest traditions of Egypt, until comparatively modern times, the history of medicine, with very limited exceptions, is a tissue of ignorance and folly, error and absurdity ; and only serves to demonstrate the absence of that knowledge upon which alone an enlightened and successful system of medicine can be founded ; and to show to what extent a noble, and we might perhaps with propriety say *divine* art, can be degraded, and perverted from its high capabilities of good, to almost universal evil, by the gross ignorance and sensuality and superstition and cupidity of man.

In ascertaining and defining the symptoms of disease, with reference to the application of remedies, some of the ancients certainly did much for the healing art ; and they undoubtedly made considerable attainments in the knowledge of anatomy and surgery. But we ought to know that all this may be done with almost entire ignorance of the laws of life, and the true philosophy of disease. Still, however, it must be admitted that with all the disadvantages under which he labored in regard to physiological knowledge, the therapeutic views of Hippocrates were such as justly entitled him to be called “ the father of medicine.”

In modern times anatomy and surgery have been carried perhaps nearly to the point of perfection ; and very great attainments have been made in physiology. The science of human life has been studied with intense interest and remarkable success : but this has been confined to the devoted few ; while, even in our own day and in the medical profession itself, the general and powerful tendency of things is adverse to the increase and diffusion of scientific knowledge in regard to human life, health and disease.

Intent, as all men are, on present enjoyment, they are little inclined to practise self-denial for the sake of a future good which they consider in any possible degree contingent ; and will only consent to bear the cross when compelled by necessity, or when they find it the only means of shunning imminent destruction, or of escaping from intolerable evils. Hence, so long as mankind are favored with even a moderate degree of health, they rush into the eagerly desired excitements of their various pursuits, and pleasures and indulgences ; and nothing seems to them more visionary and ridiculous, than precepts and regulations and admonitions

concerning the preservation of health. While they possess health, they will not believe that they are in any danger of losing it—or if they are, nothing in their habits or practices can have any effect, either in destroying or preserving it; nor can they be convinced of the universal delusion, that if they enjoy health they have within themselves the constant demonstration, that their habits and practices are conformable to the laws of health, at least, in their own constitutions. They will not, therefore, consent to be benefited, contrarily to what they regard as necessary to their present enjoyment, neither by the experience nor by the learning of others.

The consequence is—as a general fact—that while in health mankind prodigally waste the resources of their constitution, as if the energies of life were inexhaustible—and when, by the violence or by the continuance of their excesses, they have brought on acute or chronic disease, which interrupts their pursuits and destroys their comforts, they fly to the physician, not to learn from him by what violations of what laws of life and health they have drawn the evil upon themselves—and by what means they can in future avoid the same and similar difficulties; but, considering themselves as unfortunate beings, visited with afflictions which they have in no manner been concerned in causing, they require the exercise of the physician's skill in the application of remedies by which their sufferings may be alleviated and their disease removed. And, in doing this, the more the practice of the physician conforms to the appetites of the patient, the greater is his popularity, and the more cheerfully and generously is he rewarded.

Everything, therefore, in the structure and operations of society, tends to confine the practising physician to the department of therapeutics, and make him a mere curer of disease; and the consequence is, that, excepting the few who are particularly favored by their situations as public teachers, the medical fraternity, even of the present day, have little inducement or opportunity to apply themselves to the study of the science of human life, with that devotedness and zeal and perseverance, which the profoundness and intricacy of the subject require. While, on the other hand, almost everything by which men can be corrupted, is continually presented, to induce them to become the mere panders of human ignorance and depravity and lust;—and if they do not sink their noble profession to the level of the vilest empiricism, it is owing to their own moral sensibility and philanthropy and love of virtue, and magnanimity, rather than to the discriminating encouragement which they receive from society, to pursue an elevated scientific professional career.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, NOVEMBER 18, 1835.

HOUSE OF INDUSTRY HOSPITAL.

A FEW mornings since, we visited this institution, with reference to an examination of the medical department, which, from small beginnings,

has become an important practical school, where the pupil is brought in daily contact with almost as many diseases as are registered in modern books of practice.

An almshouse embraces, necessarily, a class of people who from various causes are incompetent to provide for themselves. Though some are compelled to seek a home there from the evils of honest poverty, which a life of sobriety and industry could not withstand, a majority of the adult inmates may be regarded as the victims of many vices, whose direct tendency is to break down the physical constitution, and lay the foundation of organic diseases, which neither medicine can overcome, nor an old age of regularity make comfortable. Growing out of this condition of individual incapacity, profligacy, and, frequently, absolute moral degeneracy, the children of such parents, in the earliest dawn of infantile existence, are thrown upon the tender mercies of the community, to become the subjects of the same institution, and are oftentimes tainted with the corrupt blood that flowed through the polluted bodies of those who brought them into a helpless and dependent existence. The young and the old, therefore, of both sexes, are congregated in this lazaar-house, where they sometimes remain a quarter of a century, the living monuments of that species of wretchedness which results from innate depravity, or hereditarily exhibit the utter unworthiness of the stock from whence they came. Thus, the lame, the halt and the blind, are in such places actually omnipresent: every hour in the twenty-four has its peculiar interests, so far as it relates to the manifestations of the body diseased. Here, then, is a peculiar opportunity of studying pathology under the most advantageous circumstances.

In a general and hasty examination of the hospital, in which such only are allowed a bed, as are positively suffering either from an acute curable, or a painful incurable malady, we were struck, as we always have been in similar establishments, in this and other cities, with the predominancy of affections of the heart, or derangements of the system immediately depending on the irregularity of the action of that important organ. It is probable that the paroxysms of excitement to which many of these unfortunate beings have been subjected at one period or another in the course of their irregularly spent lives, produced sudden changes in the interior of that vital, life-dispensing agent, which no skill could counter-vail, were their exact nature understood, and which slowly, but inevitably, conduct to certain death.

Another order of infirmities which seem to be concentrated there, embraces all the known variety of ulcers, as unpromising and hopeless as the surgeon is ever required to contend with. Though ordinarily received when the patient has discovered the impossibility of being made even tolerably comfortable by his own limited resources, the field of observation is unvalued as it respects the facts that may be learned of the last stages of these loathsome vultures that prey upon the human body.

Again, distortions, arising from malformations of the bones, and contracted muscles, produced by various causes, strike the visiter with astonishment. Nature appears to have sported, in numerous instances, with the architecture of the human frame, and worked and twisted it into phantastic forms, to show what liberties she can take with her own productions, without extinguishing the feeble lamp of life.

Beside these accompaniments of an almshouse domiciliation, there are continually being presented all the strange anomalies recognized in any

nomenclature of modern times, without any particularly known cause, unlooked for, and even unwelcome by those who study pains to learn how to subdue them.

Without hesitation, we are constrained to say that the almshouse hospital holds out prospects to the medical student equal to those anywhere else to be found, and we are surprised, therefore, that there are not twenty pursuing their studies there, where there is at present not half that number. A hospital of incurables is a desideratum in this country. Those really beyond the reach of the benefits of the healing art would be more appropriately provided for in such a hospital, whilst those now necessarily lodged within the influence of all that is terrible in the contemplation of a human being, weighed down by an accumulation of corporeal miseries, which are irresistibly and irremediably hurrying him to the grave, would be made better and happier by such a provision.

Franklin Infirmary, New Orleans.—This excellent establishment, one mile from the Mississippi, in the Faubourg Franklin, must be viewed favorably by the public. The charges are reasonable, compared with everything else in that dear city. Nurses, speaking almost entirely the English language, are in constant attendance. The cost of private rooms, including attendance, is from two to five dollars per day. Surgical operations are extra charges. In the ordinary wards, the cost is only one dollar a day—and for smallpox, the price is three dollars a day, which, from long and sad experience, we know to be too cheap. Dr. H. Lewis is the resident physician.

Provision for the Insane in Vermont.—From the report of a Committee appointed by the Vermont legislature to ascertain the number and condition of insane persons in that State, we learn that in 59 towns the number is 144; males, 60—females, 84. Of these, there are—under the age of 20 years, 12; between 20 and 30, 25; between 30 and 40, 32; between 40 and 50, 25; over 50, 45. Returned as continually confined, 18; occasionally confined, 19; as town paupers, 45; as poor and destitute, 40. The Committee recommend the cause of the insane to the favorable notice of the legislature.

Private Lectures.—Dr. Bryne, of Baltimore, is delivering a private course of anatomical lectures, in that city, with success. We admire this kind of professional enterprise. Those men who tug at the wheel in early life, are pretty sure of an old age of comfort and useful distinction.

Surgical Appointment.—Dr. Amasa Trowbridge, of Watertown, N. Y. has been appointed by the trustees of the Willoughby University, Ohio, Professor of Surgery in that institution.

Medical Students.—There has never perhaps been so many medical students in this city at this season of the year, as there is now; both the University and the Jefferson College are likely to be attended this winter by very large classes.—*Philadelphia paper.*

POST OFFICE ANNOYANCES.—It may seem altogether imaginary to those who have had less experience than ourselves, that the postage we are compelled to pay is becoming a burden of no ordinary magnitude. In managing the affairs of the Journal, an extensive correspondence is maintained at home and abroad, and much expense necessarily incurred. But the aggregate of the postage of *letters in which the writer alone is interested* is also very considerable, and the editor is obliged to say that no such letters, unless post paid, will hereafter be taken from the office. This declaration is not made because one or twenty letters are sometimes charged to his account; but because the number is so great, and constantly increasing, too, that he is reluctantly driven to the mortifying necessity of confessing that he cannot afford to sustain the continual drain thus made upon his small earnings.

TO CORRESPONDENTS.—The Communications of Dr. Northrop and "J." will have an early insertion.

DIED—At Princeton, N. J. Dr. Samuel Howell. In Buckingham, Bucks Co. Pa. John Wilson, M.D. aged 68.—In Baltimore, Dr. George Williamson, of the Society of Friends, in his 55th year.

Whole number of deaths in Boston for the week ending Nov. 13, 43. Males, 25—Females, 18.

Of lung fever, 6—palpitation of the heart, 1—old age, 1—croup, 1—palsy, 1—measles, 20—infantile, 6—childbed, 1—consumption, 3—typhous fever, 3. Stillborn, 3.

ADVERTISEMENTS.

MEDICAL SCHOOL OF MAINE.

The Medical Lectures at Bowdoin College will commence on *Monday*, the 22d day of February, 1836.

Anatomy and Surgery, by JEDIDIAH COBB, M.D.

Theory and Practice of Physic, by WILLIAM PERRY, M.D.

Obstetrics and Medical Jurisprudence, by JAMES MCKEEN, M.D.

Chemistry and Materia Medica, by PARKER CLEAVELAND, M.D.

The *Anatomical Cabinet* and the *Library* are annually increasing.

Every person, becoming a member of this Institution, is required *previously* to present *satisfactory* evidence that he possesses a good moral character.

The amount of fees for the Lectures is \$50. The Lectures continue three months.

Degrees are conferred at the close of the Lecture Term in May, and at the following Commencement of the College in September.

N18—5teop

Brunswick, November, 1835.

P. CLEAVELAND, Secretary.

WANTED,

Nos. 2, 3, and 4, Vol. XII. of the Medical Journal, for which a liberal price will be paid. Subscribers, who do not bind their volumes, and Editors of papers exchanged for the Journal, will confer a favor by forwarding these Numbers to the publisher.

MEDICAL TUITION.

The subscribers have recently made some additional arrangements for the instruction of medical students. A suitable room is provided, as heretofore, for the use of the pupils; the necessary books are supplied, and a systematic course of study is recommended. Personal instruction is given to each pupil in each of the several departments of medical knowledge. Every facility is provided for the cultivation of practical anatomy, which the present improved state of the law permits. This department will receive the constant attention of one of the subscribers, who will always give such aid and instruction as the pupils may need.

The pupils have free admission to the lectures on Anatomy, and on Surgery, in the Medical School of Harvard University, and to all the practice of the Massachusetts General Hospital; and generally they have opportunity to attend private surgical operations.

The terms are, 100 dollars per annum; to be paid in advance.

Boston, October, 1835.

Oct 28—6teop

JOHN C. WARREN,
GEORGE HAYWARD,
ENOCH HALE,
J. M. WARREN.

A STAND FOR A PHYSICIAN.

A PHYSICIAN in the State of Maine, in a pleasantly situated, small, flourishing village, about 25 miles from Portland, wishes to dispose of his stand. Being a very eligible stand, and affording abundant practice, it offers a good opportunity for a physician to establish himself. For further particulars, apply to the Editor of the Journal; if by mail, post-paid.

Sept 23—3m

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